

REMARKS

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided, for the indication that the drawings are acceptable, for the acknowledgment of Applicants' Information Disclosure Statement by return of the Form PTO-1449, and for the acknowledgment of Applicants' Claim for Priority and receipt of the certified copy of the priority document in the Official Action.

Applicants acknowledge with appreciation the indication that claims 6-11, 14 and 20 contain allowable subject matter on page 11 of the Official Action.

Claims 1-20 are currently pending. Applicants respectfully request reconsideration of the outstanding objections and rejections and allowance of all the claims pending in the present application.

On pages 2 and 3 of the Official Action, the Examiner objected to claims 2-11 and 17-20 under 37 CFR 1.75(c) as being of improper independent form for failing to further limit the subject matter of a previous claim. Applicants respectfully submit that the basis for such objection is not appropriate since these claims do further limit the subject matter of the claims from which they depend. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection under 37 CFR 1.75(c).

Applicants note that claim 1 recites “at least one first outer area transmitting part of the laser beam incident on part of said optical element outside said central area while having an effect on the laser beam so that the beam after passing through said at least one first outer area will be in *a first phase state* which *does not include a state* where the beam has *no phase difference* relative to a beam passing through said central area” (emphasis added). Applicants further note that claim 2 recites “wherein said at least one first outer area gives the beam passing through said at least one first outer area *a first phase difference* relative to the beam passing through said central area” (emphasis added). Accordingly, Applicants submit that although the recitation of the *first phase state* in claim 1(i.e., as not including a state where the beam has no phase difference) may be viewed as requiring a *first phase difference*, there is at least no contradiction or inconsistency between these recitations in independent claim 1 and dependent claim 2.

Applicants note that claim 1 recites “at least one second outer area transmitting part of the laser beam incident on part of said optical element other than said central area and said at least one first outer area while having an effect on the laser beam so that the beam after passing through said at least one second outer area will be in *a second phase state* which is different from said first phase state and *includes a state* where the beam has *no phase difference* relative to the beam passing through said central area” (emphasis added). Applicants further note that claim 2 recites “wherein said at least one second

outer area gives the beam passing through said at least one second outer area a *second phase difference* relative to the beam passing through said central area” (emphasis added). Applicants submit that there is no contradiction or inconsistency between these recitations in independent claim 1 and dependent claim 2, and that this recitation in claim 2 is indeed narrower than (and thus further limits) this recitation in claim 1.

In this regard, Applicants note that the present application discloses three embodiments: the first embodiment as depicted in Figs. 3A-3C (note Paragraphs [0061] - [0065]); the second embodiment as depicted in Figs. 9A-9C (note Paragraphs [0079] - [0085]); and the third embodiment as depicted in Figs. 10-10C (note Paragraphs [0087] - [0094]). Applicants submit that the recitation of the second outer area in claim 1 is broad enough to cover each of the first, second and third embodiments, while the recitation of the outer area in claim 2 is drafted more narrowly to cover structures such as that of the second embodiment.

In this regard, Applicant notes that in each of the first, second and third embodiments a beam after passing through the second outer area is in *a second phase state* which *includes a state where the beam has no phase difference* relative to the beam passing through the central area. In other words, the *second phase state* would include phase states having *phase differences* of, for example, -4π , -2π , 0 , 2π , 4π , etc. In the first and third embodiments the *phase difference* of a beam passing through the second outer

area is 0 (note Paragraphs [0061] and [0091]), while in the second embodiment the *phase difference* of a beam passing through the second outer area is -2π (note Paragraph [0082]). Accordingly, Applicants submit that each of the first, second and third embodiments provides *a second phase state which includes a state where the beam has no phase difference* relative to the beam passing through the central area, and that claim 1 is therefore clearly broad enough to cover each of the first, second and third embodiments.

However, Applicant notes that only the second embodiment has a second outer area which gives a beam passing therethrough a *second phase difference* (i.e., -2π) relative to the beam passing through the central area. Accordingly, Applicants submit that claim 2 is drafted more narrowly to cover structures such as that of the second embodiment (and thus claim 2 is narrower than and further limits claim 1).

Applicants submit that the above explanation also applies to the recitations in independent claim 16 and dependent claim 17 which were also objected to by the Examiner. Applicants further submit that, although the above explanation necessarily makes reference to the specific embodiments disclosed in the present application as exemplary, the claims are clearly not limited to such disclosed embodiments, and nothing stated in the above explanation should be viewed or characterized as limiting the claims in any manner.

Accordingly, in view of the above noted remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding objection under 37 CFR 1.75(c).

On pages 4-11 of the Official Action, the Examiner has provisionally rejected claims 1-5, 12, 13 and 15-19 under the “nonstatutory doctrine” of obviousness type double patenting over claims 1, 3 and 16-19 of copending U.S. Application No. 10/721,908 (either alone, or in view of YOSHII et al. U.S. Patent No. 5,477,554). Although Applicants do not necessarily agree with the rejection of claims 1-5, 12, 13 and 15-19 on these grounds, nevertheless, Applicants have submitted herewith a Terminal Disclaimer in order to expedite prosecution of the present application. Accordingly, it is believed that the provisional rejection of claims 1-5, 12, 13 and 15-19 under the “nonstatutory doctrine” of obviousness type double patenting is now moot.

Accordingly, Applicants respectfully requests reconsideration and withdrawal of all the rejections, and an early indication of the allowance of claims 1-20.

SUMMARY AND CONCLUSION

Entry and consideration of the present Response and Terminal Disclaimer, reconsideration of the outstanding Official Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
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